

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES E. SHAW

Appeal No. 97-1841
Application 08/315,052¹

ON BRIEF

Before CALVERT, FRANKFORT and PATE, **Administrative Patent Judges**.
PATE, **Administrative Patent Judge**.

DECISION ON APPEAL

This is an appeal from the final rejection of claim 1. The only other remaining claims in the application, claims 4 through 6, are allowed.

The claimed invention is directed to an apparatus for illuminating a liquid crystal display. The apparatus consists

¹ Application for patent filed September 29, 1994.

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of a lamp and an optical element placed behind the lamp to reflect light toward the liquid crystal display.

Claim 1, reproduced below, is the subject matter on appeal.

1. An apparatus having a lamp side and a back side comprising:

a lamp disposed near the lamp side and an optical element disposed between the lamp and the back side; and,

the optical element having a [sic] element lamp side and an element back side with reflective coatings on the element back side and partially on the element lamp side and the optic [sic, optical] element having a light transmissive characteristic, the element lamp side further having an elevated region with no reflective coatings thereon such that a light channeling path is present which tends to direct light through the element lamp side where said light is reflected off the element back side and exits through the element lamp side.

The references of record relied upon by the examiner as evidence of obviousness under 35 U.S.C. § 103 are:

Palmquist	2,379,741	July 3, 1945
Meijer	4,215,501	Aug. 5, 1980

The examiner has rejected claim 1 under 35 U.S.C. § 103 as unpatentable over Palmquist in view of Meijer. The examiner explains the rejection thusly:

Claim 1 is rejected under 35 U.S.C. § 103 as being unpatentable over Palmquist in view of Meijer.

Palmquist discloses an illuminated apparatus inherently having a lamp side and a back side comprising an optical element (fig. 1) disposed near the back side (10) comprising an element lamp

side (a), an element back side with reflective coatings (11) and partially on the element lamp side (12), wherein the optic element has a light transmissive characteristic (13), the element lamp side (a) further having an elevated region (13) with no reflective coatings thereon such that a light channeling path (c) is present which tends to direct light through the element lamp side where the light is reflected off the element back side (11) and exits through the element lamp side (a). However, Palmquist does not disclose a lamp disposed near the lamp side.

Meijer teaches the use of a lamp (306) disposed near a lamp side of a reflective optical apparatus (100,300) for the purpose of illuminating the optical element.

It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the apparatus of Palmquist to include the light source disposed near the lamp side of the apparatus as taught by Meijer in order to illuminate the optical element.

(Final Rejection, pages 3-4)

OPINION

We have carefully reviewed the rejection on appeal in light of the arguments of the appellant and the examiner. As a result of this review, we have determined that the applied prior art establishes a **prima facie** case of obviousness that has not been rebutted by additional evidence from the appellant. Accordingly, we will affirm the rejection of claim 1 on appeal.

It is our finding that Palmquist discloses an optical element having a front side illuminated by both ambient light and

an incident beam or ray of light. The element back side is disclosed as a base or backing (10) having a reflective back surface coating (11) thereon. The front side of Palmquist that is illuminated by both ambient and incident beams or rays of light from the lamp, also has a reflective binder coating of a different color than the reflective coating on the element back side. Note that the reflective coating (12) from the optical element front side is interrupted by spheres (13), which spheres by their location in the element front side reflective coating make this coating only partially cover the element front side. Turning to a consideration of the spheres (13), they provide the optical element with elevated regions having no reflective coatings thereon, such that a light channeling path as shown in Figure 1 by ray trace c is provided. Note that as shown by ray trace c, light in the channeling path is directed to the front or incident light side (by an oncoming headlight) and reflected off the element back side and exits through the element front side. As noted above, Palmquist is disclosed as being illuminated both by incident ambient light and by incident beams or rays of light as provided by the headlights of approaching cars. In our view, the structure of Palmquist when operated with approaching automobiles having headlamps, as clearly disclosed, satisfies the

limitations of the appealed claim. Nonetheless, the examiner has cited Meijer which discloses, for instance in Figure 3, illuminating a sign by lamps placed in front of the sign to shine thereon. We agree with the examiner that it would have been obvious to place lights as disclosed by Meijer in front of the optical element structure disclosed in Palmquist to illuminate the optical element structure. Indeed, lighted highway signs are ubiquitous. It is our view that there is ample suggestion to illuminate the highway sign disclosed in Palmquist if Palmquist's disclosed automobiles are not considered to provide a lamp means that illuminates Palmquist's sign. Accordingly, there is clear suggestion for the examiner's combination of references under 35 U.S.C. § 103.

Appellant has argued there is no suggestion or motivation for combining the two references. As noted above, it is our view that the examiner has provided ample suggestion for the provision of the lights of Meijer for illuminating the highway sign disclosed in Palmquist. The appellant further argues that it is not the object of the invention to provide a lamp to illuminate the optical element. However, we must note that the examiner's rejection of the claim on appeal is not directed to the object of the invention, but rather to the claimed subject matter itself.

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Furthermore, the appellant states that the optical element in his invention is provided to reflect light in a direction back toward the lamp. This is precisely the disclosure of Palmquist which provides his optical element to reflect light back to the eyes of the driver of the automobile that is illuminating the sign.

For the foregoing reasons, the rejection of the claim on appeal has been affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

IAN A. CALVERT)	
Administrative Patent Judge)	
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CHARLES E. FRANKFORT)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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WILLIAM F. PATE, III)	
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